

# CONSTRUCTION WASTE MANAGEMENT POLICY

TG 05524 – TECHNICAL GUIDE – Construction Waste Management

## **SPECIFICATION REVIEW**

Green Building Services, Inc. reviewed the Construction Waste Management – TECHNICAL GUIDE (TG 01524) for the State of Hawaii on March 25, 2008. The review was focused on the LEED requirements in Division 1 sections and the products and requirements specified in Divisions 2 through 10.

# General Notes about the Construction Waste Management Plan

- Cost/ revenue analysis does not need to be included in the CWMP to meet the requirements of the LEED rating system. Section E of 01524 outlines 10 requirements for the economic analysis and does not need to be included, if desired. LEED only requires the information be quantified by weight (in tons) or volume (in cubic yards) and not by cost.
- o Soil, rock, and land-clearing debris may not be included in the diversion rate calculations for LEED, but the Technical Guide should still encourage diversion of these materials.

#### **Recommendations:**

### **Coordination Issues**

- Require salvaging and recycling for all projects.
- LEED requires a Construction Waste Management Plan and the LEED Materials and Resources credit quantifies diversion of construction and demolition debris from landfill incineration by weight or volume by 50%, 75%, or 95%.
- As the overall goal is to incorporate no-cost/low-cost strategies to increase construction waste reduction and recycling, donation is an acceptable landfill diversion method per the requirements of LEED and is not addressed in the Construction Waste Management Technical Guide. Corporate take-back programs (at no cost) are also opportunities and are common with ceiling tile and carpet manufacturers.
- In many markets and geographic areas, it is economically beneficial to recycle metals, concrete, asphalt, and cardboard because these are items for which have re-sale value.



# **Design Issues**

A. Identify the products with high-potential for recyclability. Example materials include aluminum, wood, steel, textile, ceiling tiles, carpet, etc. These items are common to all projects and should be specified in Table 1: Waste Identification of the Waste Management Plan (Appendix A) of the Guide Specification for the Contractor.



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SECTION 01524 - CONSTRUCTION WASTE MANAGEMENT

### **SPECIFICATION REVIEW**

Green Building Services, Inc. reviewed the DAGS – Public Works Construction Waste Management (Section 01524) for the State of Hawaii on March 25, 2008. The review was focused on the LEED requirements in Division 1 sections and the products and requirements specified in Divisions 2 through 10.

#### 1.01 **SUMMARY**

- A. The summary is somewhat vague and states that the main priority of the construction waste management policy is "to assure that waste material is handled in the proper manner". The secondary purpose is "to reduce the amount of waste requiring landfill disposal and to promote a more efficient use of construction materials".
  - A more direct purpose may state: "The purpose of this procedure is to divert construction, demolition and land-clearing debris from landfill and incineration disposal; redirect recyclable recovered resources back to the manufacturing process; and redirect reusable materials to appropriate sites."
- B. The Construction Waste Management Plan needs to apply to all construction activities conducted by contractors and subcontractors at the facility.
- C. Recommend including all three categories on all projects for flexibility by the General Contractor:
  - Salvaging non hazardous (demolition and/or construction) waste.
  - Recycling non-hazardous (demolition and/ or construction) waste.
  - Disposing of non-hazardous (demolition and/ or construction) waste.
    - All must be addressed, but all do not need to achieve the same recycled rate. The aggregate of the three will equal the total recycled rate, per the requirements of LEED.



#### 1.03 DEFINITIONS:

- E. Add "without processing" to the end of the sentence.
- G. "Donation"
  - Add donation as an acceptable construction waste landfill diversion strategy, such as a donation to Habitat for Humanity, or similar organization.

#### 1.05 PERFORMANCE:

A. Add a 95% goal. The LEED requirements align the point allocation with 50%, 75%, or 95% landfill diversions.

Add in the definition of a recycling rate:

- Recycling Rate (%) = [(Recycled, Reused, Salvaged Waste)/ (Recycled, Reused, Salvaged Waste, Land filled Waste, and Incinerated Waste)]
- o It is important to note that garbage generated during the construction process (such as the waste generated from employees, etc. must be included in the calculation for "Land filled Waste" and/or "Incinerated Waste", if not composted/recycled).

# 1.07 QUALITY ASSURANCE:

 Material handling procedures to describe how the materials will be protected from contamination and procedure/means to ensure the above materials are consistent with the sorting/recycling facilities requirements should be addressed in Quality Assurance.

#### 1.08 WASTE MANAGEMENT PLAN

B. The Contact Information for the Waste Management Coordinator should be included here, not just the name. LEED prefers contact information be as detailed as possible to ensure consistency and accountability. Information such as phone number, email, and address are all relevant to this section.

#### 3.01 PLAN IMPLEMENTATION

Meetings: A description of the regular meetings to be held that address waste management. Contractor shall conduct Construction Waste Management meetings. Meetings shall include



subcontractors affected by the Waste Management Plan as well as Owner designated representative(s). At a minimum, waste management goals and issues shall be discussed at the following meetings: pre-bid meeting, pre-construction meeting, and regularly scheduled job-site meetings.

- Indicate any instance where compliance with requirements of this specification does not appear to be possible and request resolution from the Owner and Architect.
- Waste Management Plan Review Meeting: Once the Owner and Architect have reviewed the Draft Waste Management Plan and prior to any waste removal at the site, schedule and conduct a follow-up meeting agreed upon during the meeting. The purpose of the meeting is to review the Draft Waste Management Plan and discuss procedures, schedules and specific requirements for waste materials recycling and disposal. Discuss coordination and interface between the Contractor and other construction activities. Identify and resolve potential compliance problems with requirements. Record minutes of the meeting, identifying all conclusions reached and matters requiring further resolution.
  - Attendees: The Contractor and related Contractor personnel associated with the work of this section, including personnel to be in charge of the waste management program, Architect, Owner and such additional personnel as the Architect or Owner deem appropriate.
  - Final Construction Waste Management Plan: Make any revisions to the Draft Waste Management Plan agreed upon during the meeting identified above and incorporate resolutions agreed to be made subsequent to the meeting. Submit the revised plan to the Owner and Architect for approval within 10 calendar days of the meeting.
- F. At the end of the project the Contractor shall submit a Final Waste Management Report. The Report shall be submitted on a form acceptable to the Owner and shall contain the following information:



- The total amount of waste land filled from the Project, the identity of the transfer station/landfill.
- The total percentage of material recycled in tons.